

WHAT IS CLAIMED IS:

1. An apparatus for detecting at least one of handling of electrodes and removing of the electrodes from a package containing the electrodes, the electrodes being mutually releasably connected by an electrically conductive medium, the apparatus comprising:
 - means for monitoring a magnitude of an electrical characteristic measured from an electrical circuit having an electric current path through said electrodes and said medium; and
 - means for identifying an occurrence of at least one of said handling and said removing based on variation over time in said magnitude.
2. The apparatus of claim 1, wherein the monitoring means includes means for monitoring a magnitude of resistance, and wherein the identifying means includes means for identifying said occurrence based on a variation over time in the magnitude of the resistance.
3. The apparatus of claim 1, wherein the monitoring means includes means for monitoring a magnitude of impedance, and wherein the identifying means includes means for identifying said occurrence based on a variation over time in the magnitude of the impedance.
4. The apparatus of claim 1, wherein said identifying means is configured to identify said occurrence based on plural variations over time in said magnitude.
5. An arrangement comprising the apparatus, electrodes and medium of claim 1, wherein:
 - the medium resides between the electrodes; and
 - the electrodes and the medium are contained within the package prior to said occurrence to be identified.
6. The arrangement of claim 5, further including an electrically nonconductive element that is disposed adjacent to said medium and between the electrodes to act as a blocking mechanism that lengthens said electric current path.

7. The arrangement of claim 6, wherein the disposition is configured such that said path travels through the medium laterally more than twice as far as said path travels in an electrode-to-electrode direction.

8. A method for detecting at least one of handling of electrodes and removing of the electrodes from a package containing the electrodes, the electrodes being mutually releasably connected by an electrically conductive medium, the method comprising the steps of:

monitoring a magnitude of an electrical characteristic measured from an electrical circuit having an electric current path through said electrodes and said medium; and

identifying an occurrence of at least one of said handling and said removing based on variation over time in said magnitude.

9. An apparatus for detecting at least one of handling of electrodes and removing of the electrodes from a package containing the electrodes, the electrodes being mutually releasably connected by an electrically conductive medium, the apparatus comprising:

a storage memory;

a clock;

a module for periodically sampling, according to counting of the clock, a magnitude of an electrical characteristic of electric current in a path through said electrodes and said medium to produce samples that are stored in the storage memory; and

a processor for receiving the samples and identifying an occurrence of at least one of said handling and said removing based on variation over time in said magnitude.

10. The apparatus of claim 9, wherein the processor performs said identifying by filtering the samples, deriving from absolute values of the filtered samples a moving sum having a time window of predetermined length, and detecting when the moving sum exceeds a predefined threshold.

11. The apparatus of claim 10, further comprising:
means for issuing user prompts; and
a user-actuatable switch to commence the user prompts, wherein calculation of the moving sum commences upon, or a predetermined time period after, actuation of the switch.

12. An apparatus comprising:
a flexible, generally flat electrode;
a flexible, electrically-conductive skin-adhesive layer on one side of the electrode;
a flexible, electrically nonconductive layer on the other side of the electrode, the electrically nonconductive layer and the skin-adhesive layer both having inner surfaces that face each other, and, opposite to said inner surfaces, respective outer surfaces; and
a package having an inside surface that surrounds the electrode and said outer surfaces, said inside surface having a portion that makes adhesive contact with the outer surface of the electrically nonconductive layer.

13. The apparatus of claim 12, further including another electrode mated to said flexible, generally flat electrode by means of an electrically nonconductive release layer having an opening through which passes an electric current path between the electrodes, said portion being aligned adjacent to said opening.

14. An apparatus comprising:
a defibrillator electrode pad;
an integral belt surrounding the pad; and
a package surrounding the belt and the pad and to which the belt is attached;
wherein a composition and a thickness of the belt allows an operator to manually break the belt to apply the pad to a medical patient in need of defibrillation.

15. An apparatus comprising:
a defibrillator electrode pad; and
two belts that mutually and adhesively attach end-to-end to surround the pad and which attach at their other ends to a package surrounding the belts and the pad;

wherein the end-to-end attachment is configured with an adhesive strength having a magnitude small enough to allow an operator to manually separate the belts to apply the pad to a medical patient in need of defibrillation.

16. An apparatus comprising:

a pair of electrodes having lead wires to form an electric circuit;

an electrically-conductive medium that is adhesive to skin of a medical patient;

a piezoelectric substance; and

an electrically nonconductive layer having an opening;

wherein the medium, substance and layer are disposed between the electrodes, with the substance touching at least one of the electrodes, so that movement of said at least one electrode that deforms the substance causes an electric voltage to be generated between the electrodes.

17. The apparatus of claim 16, further comprising, for detecting the generated electric voltage, a defibrillator in said electric circuit and in electrical contact with the lead wires, the defibrillator identifying an occurrence of at least one of handling of electrodes and removing of the electrodes from a package containing the electrodes based on said detecting of the generated electric voltage.

18. An apparatus comprising:

a flexible, generally flat defibrillator electrode pad having a periphery and a central portion with respect to the periphery;

a rigid cartridge having an interior; and

an elastically compressible material sized to fit, after compression, within said interior along with the electrode pad, said material being configured and disposed to expand upon opening of the cartridge so as to press against said central portion to flex the pad.